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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,418	10/16/2003	William E. Welnick	33692.03.3199	7981

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EXAMINER	
MILLER, BRANDON J	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
11/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/687,418	WELNICK ET AL.	
	Examiner	Art Unit	
	Brandon J. Miller	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11,13,14,17,19 and 22-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11,13,14,17,19 and 22-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Claims 11, 13-14, 17, 19, and 22-28 are currently pending in the application.

Claim Rejections - 35 USC § 112

1. Claims 11, 14, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 11;

Claim 11, lines 9-13 recite "the pilot strength measurement message includes at least the long term filtered measurement data if a strongest pilot signal represented by corresponding long term filtered measurement data generated by at least one of the plurality of finger receivers is greater than a first threshold" the claim then goes on to recite in lines 14-17 " the pilot strength measurement message includes at least the long term filtered measurement data if the strongest pilot signal represented by the long term filtered measurement data is less than the first threshold and greater than a second threshold". These limitations do not distinctly claim when the pilot strength measurement message includes at least the long term filtered measurement data and as a result render the claim indefinite.

Claim 11, lines 17-18 recited, "and if at least one of a number of candidate pilots is greater than three, and a number of active pilots is greater than one". This limitation does not distinctly claim the subject the subject matter which applicant regards as the invention because does not specifically point out how one candidate pilot can be greater than three. Therefore, the limitation renders the claim indefinite.

Regarding claim 11, the phrase "otherwise" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 14;

Claim 14, lines 6-9 recite "producing a pilot strength measurement message based on one of: the long term filtered measurement data, in response to receiving the long term filtered measurement data corresponding to at least one of the plurality of pilot signals, and the short term filtered measurement data corresponding to at least one of the plurality of pilot signals" the claim goes on to recite in lines 10-12 "producing the pilot strength measurement message based on at least the short term filtered measurement data if a strongest pilot signal represented by corresponding long term filtered measurement data is less than a threshold" the claim then goes on to recite in lines 14-16 "producing the pilot strength measurement message including at least the short term filtered measurement data based on at least one of a number of pilot signals in the active set, and a number of pilot signals in the candidate set". These limitations do not distinctly claim what producing the pilot strength measurement message should be based on and as a result render the claim indefinite.

Regarding claim 19;

Claim 19, lines 3-7 recite "producing the pilot strength measurement message including at least the long term filtered measurement message data when the strongest pilot signal represented by corresponding long term filtered measurement data is less than the first drop threshold and greater than the second threshold and at least one of when a number of candidate pilots is greater than one, and when a number of active pilots is greater than two". This

limitation is unclear and does not distinctly claim when the pilot strength measurement message should be produced and as a result renders the claim indefinite.

The following art rejection is based on the best possible claim interpretation in light of the rejections under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 11, 13-14, 17, 19, and 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiedemann, Jr. (US 7,009,953 B2) in view of Pan et al. (US 2004/0198280 A1).

Regarding claim 11 Tiedemann, Jr. teaches a wireless device for producing a pilot strength measurement message (see col. 6, lines 41-45). Tiedemann, Jr. teaches a plurality of finger receivers each operative to receive at least one of an active pilot signal and a candidate pilot signal operative to generate measurement data (see col. 7, lines 64-67 and col. 8, lines 1-8 & 20-23). Tiedemann, Jr. teaches a scan search receiver also operative to receive the at least one of the active pilot signal and the candidate pilot signal, and in response, operative to generate corresponding measurement data (see col. 8, lines 56-65). Tiedemann, Jr. teaches a pilot strength measurement message generator, operatively coupled to the plurality of finger receivers and to the scan search receiver, and operative to produce the pilot strength measurement message

including at least the measurement data if a strongest pilot signal represented by corresponding measurement data generated is greater than the a first threshold (see col. 6, lines 41-45). Tiedemann, Jr. teaches wherein the pilot strength measurement message includes measurement data if a strongest pilot signal represented by the measurement data is less than a first threshold and greater than a second threshold, and if at least one of a number of candidate pilots is greater than three, and a number of active pilots is greater than one (see col. 6, lines 35-50, add and drop threshold relates to first and second thresholds). Tiedemann, Jr. does not specifically teach finger receivers generating long term filtered measurement data; a scan search receiver generating short term measurement data; and a pilot strength measurement message including either long term filtered measurement data or short term filtered measurement data based upon if received pilot signals are greater than or less than a threshold. Pan teaches using long term filtered measurement data or short term filtered measurement data according to the signal strength and characteristic of received pilot signals (see paragraphs [0038] – [0040], response time of filter relates to long term or short term measurement data).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include finger receivers generating long term filtered measurement data; a scan search receiver generating short term measurement data; and a pilot strength measurement message including either long term filtered measurement data or short term filtered measurement data based upon if received pilot signals are greater than or less than a threshold because the measurement data generated from the received pilot signals in Tiedemann, Jr. (see Tiedemann, Jr. col. 7, lines 64-67 and col. 8, lines 1-8 & 20-23) can be filtered long or short term and the combination would allow for the improved optimization of handoff and

system access that both references are concerned with (see Tiedemann, Jr.. col. 2, lines 62-65 and Pan, paragraph [0018]).

Regarding claim 13 Tiedemann, Jr. teaches wherein the threshold includes a drop threshold (see col. 6, lines 48-52).

Regarding claim 14 Tiedemann, Jr. teaches a method for producing a pilot strength measurement message (see col. 6, lines 36-45). Tiedemann, Jr. teaches receiving measurement data corresponding to at least one of a plurality of pilot signals (see col. 8, lines 18-22 & 56-65). Tiedemann, Jr. teaches producing a pilot strength measurement message based on measurement data corresponding to at least one of the plurality of pilot signals (see col. 6, lines 35-46 and col. 8, lines 56-65). Tiedemann, Jr. teaches producing a pilot strength measurement message based on at least the measurement data if a strongest pilot signal represented by corresponding measurement data is less than a threshold (see col. 6, lines 36-41). Tiedemann, Jr. teaches receiving an active set of pilot signals and a candidate set of pilot signals (see col. 5, lines 65-67 and col. 6, lines 1-10). Tiedemann, Jr. teaches producing the pilot strength measurement message including measurement data based on at least one of a number of pilot signals in the active set, and a number of pilot signals in the candidate set (see col. 6, lines 4-10 & 25-45). Tiedemann, Jr. does not specifically teach receiving long term filtered measurement data and short term filtered measurement data corresponding to pilot signals; and producing a pilot strength measurement message based on one of long term filtered measurement data and short term filtered measurement data. Pan teaches a using long term filtered measurement data or short term filtered measurement data according to the signal strength and characteristic of

received pilot signals (see paragraphs [0038] – [0040], response time of filter relates to long term or short term measurement data).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include receiving long term filtered measurement data and short term filtered measurement data corresponding to pilot signals; and producing a pilot strength measurement message based on one of long term filtered measurement data and short term filtered measurement data because the measurement data generated from the received pilot signals in Tiedemann, Jr. (see Tiedemann, Jr. col. 7, lines 64-67 and col. 8, lines 1-8 & 20-23) can be filtered long or short term and the combination would allow for the improved optimization of handoff and system access that both references are concerned with (see Tiedemann, Jr.. col. 2, lines 62-65 and Pan, paragraph [0018]).

Regarding claim 17 Tiedemann, Jr. teaches a method for producing a pilot strength measurement message (see col. 6, lines 36-45). Tiedemann, Jr. teaches receiving a plurality of pilot signals (see col. 8, lines 18-22 & 56-65). Tiedemann, Jr. teaches producing measurement data corresponding to at least one of the plurality of pilot signals (see col. 6, lines 35-46 and col. 8, lines 56-65). Tiedemann, Jr. teaches producing a pilot strength measurement message based on at least the measurement data when a strongest pilot signal represented by corresponding measurement data is greater than a threshold (see col. 6, lines 41-46). Tiedemann, Jr. teaches receiving an active set of pilot signals and a candidate set of pilot signals (see col. 5, lines 65-67 and col. 6, lines 1-10). Tiedemann, Jr. teaches producing the pilot strength measurement message including measurement data based on at least one of a number of pilot signals in the active set, and a number of pilot signals in the candidate set (see col. 6, lines 4-10 & 25-45).

Tiedemann, Jr. does not specifically teach producing long term filtered measurement data and short term filtered measurement data corresponding to pilot signals; and producing a pilot strength measurement message based on one of long term filtered measurement data and short term filtered measurement data. Pan teaches using long term filtered measurement data or short term filtered measurement data according to the signal strength and characteristic of received pilot signals (see paragraphs [0038] – [0040], response time of filter relates to long term or short term measurement data).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include producing long term filtered measurement data and short term filtered measurement data corresponding to pilot signals; and producing a pilot strength measurement message based on one of long term filtered measurement data and short term filtered measurement data because the measurement data generated from the received pilot signals in Tiedemann, Jr. (see Tiedemann, Jr. col. 7, lines 64-67 and col. 8, lines 1-8 & 20-23) can be filtered long or short term and the combination would allow for the improved optimization of handoff and system access that both references are concerned with (see Tiedemann, Jr.. col. 2, lines 62-65 and Pan, paragraph [0018]).

Regarding claim 19 Tiedemann, Jr. teaches receiving an active set of pilots and a candidate set of pilot signals (see col. 5, lines 65-67 and col. 6, lines 1-10). Tiedemann, Jr. teaches producing the pilot strength measurement message including measurement data when the strongest pilot signal represented by corresponding measurement data is less than a first drop threshold and greater than a second threshold and at least one of when a number of candidate

pilots is greater than one, and when a number of active pilots is greater than one (see col. 6, lines 36-45). Tiedemann, Jr. does not specifically teach long term filtered measurement data. Pan teaches a using long term filtered measurement data according to the signal strength and characteristic of received pilot signals (see paragraphs [0038] – [0040], response time of filter relates to long term or short term measurement data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include long term filtered measurement data because the measurement data generated from the received pilot signals in Tiedemann, Jr. (see Tiedemann, Jr. col. 7, lines 64-67 and col. 8, lines 1-8 & 20-23) can be filtered long or short term and the combination would allow for the improved optimization of handoff and system access that both references are concerned with (see Tiedemann, Jr.. col. 2, lines 62-65 and Pan, paragraph [0018]).

Regarding claim 22 Tiedemann, Jr. teaches wherein the pilot strength measurement message generator is operative to receive measurement data corresponding to at least one pilot signal, and wherein the pilot strength measurement message further includes at least measurement data if a strongest pilot signal represented by corresponding measurement data is less than a threshold (see col. 6, lines 36-47 and col. 8, lines 56-65). Tiedemann, Jr. does not specifically teach using short term filtered measurement data. Pan teaches using short term filtered measurement data or short term filtered measurement data according to the signal strength and characteristic of received pilot signals (see paragraphs [0038] – [0040], response time of filter relates to long term or short term measurement data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include using short term filtered measurement data because the measurement data generated

from the received pilot signals in Tiedemann, Jr. (see Tiedemann, Jr. col. 7, lines 64-67 and col. 8, lines 1-8 & 20-23) can be filtered long or short term and the combination would allow for the improved optimization of handoff and system access that both references are concerned with (see Tiedemann, Jr.. col. 2, lines 62-65 and Pan, paragraph [0018]).

Regarding claim 23 Tiedemann, Jr. teaches a circuit for producing a pilot strength measurement message (see col. 6, lines 41-46). Tiedemann, Jr. teaches a pilot strength measurement message generator operative to receive measurement data corresponding to at least one pilot signal, and in response, operative to produce a pilot strength measurement message (see col. 6, lines 41-46 and col. 8, lines 56-65). Tiedemann, Jr. teaches wherein the pilot strength measurement message includes measurement data based on at least one of a number of pilot signals in an active set and a number of pilot signals in a candidate set (see col. 8, lines 56-65). Tiedemann, Jr. does not specifically teach a pilot strength measurement message operative to receive both long tern filtered measurement data and short term measurement data corresponding to at least one pilot signal. Pan teaches a using long term filtered measurement data or short term filtered measurement data according to the signal strength and characteristic of received pilot signals (see paragraphs [0038] – [0040], response time of filter relates to long term or short term measurement data).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a pilot strength measurement message operative to receive both long tern filtered measurement data and short term measurement data corresponding to at least one pilot signal because the measurement data generated from the received pilot signals in Tiedemann, Jr. (see Tiedemann, Jr. col. 7, lines 64-67 and col. 8, lines 1-8 & 20-23)

can be filtered long or short term and the combination would allow for the improved optimization of handoff and system access that both references are concerned with (see Tiedemann, Jr.. col. 2, lines 62-65 and Pan, paragraph [0018]).

Regarding claim 24 Tiedemann, Jr. and Pan teach a device as recited in claims 19 and 22 and is rejected given the same reasoning as above.

Regarding claim 25 Tiedemann, Jr. and Pan teach a device as recited in claim 13 and is rejected given the same reasoning as above.

Regarding claim 26 Tiedemann, Jr. teaches a wireless device for producing a pilot strength measurement message (see col. 6, lines 41-45). Tiedemann, Jr. teaches a first reciever operative to receive at least one of an active pilot signal and operative to generate measurement data (see col. 7, lines 64-67 and col. 8, lines 1-8 & 20-23). Tiedemann, Jr. teaches a second receiver also operative to receive the at least one of the active pilot signal, and in response, operative to generate corresponding measurement data (see col. 8, lines 56-65). Tiedemann, Jr. teaches a pilot strength measurement message generator, operatively coupled to the first receiver and to the second receiver, and operative to produce the pilot strength measurement message (see col. 6, lines 41-45). Tiedemann, Jr. teaches wherein the pilot strength measurement message includes measurement data if a strongest pilot signal represented by the measurement data is greater than a threshold or at least if measurement data of a strongest pilot signal represented by corresponding measurement data is less than a threshold (see col. 6, lines 35-50). Tiedemann, Jr. does not specifically teach a first receiver generating long term filtered measurement data; a second receiver generating short term measurement data; and a pilot strength measurement message including either long term filtered measurement data or short term filtered measurement

data based upon if received pilot signals are greater than or less than a threshold. Pan teaches using long term filtered measurement data or short term filtered measurement data according to the signal strength and characteristic of received pilot signals (see paragraphs [0038] – [0040], response time of filter relatès to long term or short term measurement data).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a first receiver generating long term filtered measurement data; a second receiver generating short term measurement data; and a pilot strength measurement message including either long term filtered measurement data or short term filtered measurement data based upon if received pilot signals are greater than or less than a threshold because the measurement data generated from the received pilot signals in Tiedemann, Jr. (see Tiedemann, Jr. col. 7, lines 64-67 and col. 8, lines 1-8 & 20-23) can be filtered long or short term and the combination would allow for the improved optimization of handoff and system access that both references are concerned with (see Tiedemann, Jr.. col. 2, lines 62-65 and Pan, paragraph [0018]).

Regarding claim 27 Tiedemann, Jr. teaches wherein the at least one pilot signal includes at least one of an active set of pilot signals and a candidate set of pilot signals (see col. 5, lines 65-67 and col. 6, lines 1-10). Tiedemann, Jr. teaches wherein a pilot strength measurement message includes at least measurement data based on at least one of a number of pilot signals in an active set and a number of pilot signals in a candidate set (see col. 8, lines 56-65). Tiedemann, Jr. does not specifically teach long term filtered measurement data or short term measurement data; and a pilot strength measurement message including either long term filtered measurement data or short term filtered measurement. Pan teaches using long term filtered

measurement data or short term filtered measurement data according to the signal strength and characteristic of received pilot signals (see paragraphs [0038] – [0040], response time of filter relates to long term or short term measurement data). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include long term filtered measurement data or short term measurement data; and a pilot strength measurement message including either long term filtered measurement data or short term filtered measurement because the measurement data generated from the received pilot signals in Tiedemann, Jr. (see Tiedemann, Jr. col. 7, lines 64-67 and col. 8, lines 1-8 & 20-23) can be filtered long or short term and the combination would allow for the improved optimization of handoff and system access that both references are concerned with (see Tiedemann, Jr.. col. 2, lines 62-65 and Pan, paragraph [0018]).

Regarding claim 28 Tiedemann, Jr. and Pan a device as recited in claim 13 and is rejected given the same reasoning as above.

Claim Objections

3. Claims 14 and 26 objected to because of the following informalities:

Claim 14 appears to have a grammatical error in lines 4.

Claim 26 appears to have a grammatical error in lines 13-14 and it is suggested that "if a strongest pilot signal" in line 14 be changed to of a strongest pilot signal.

Appropriate correction is required.

Response to Arguments

4. Applicant's arguments with respect to claims 11, 13-14, 17, 19, and 22-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yang et al. U.S Patent No. 6,785,321 B1 discloses an apparatus and method for estimating the time of arrival of a spread spectrum signal in a wireless communication system.

Krause et al. U.S. Patent No. 6,160,799 discloses a method of and apparatus for pilot set maintenance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 20, 2007

GEORGE ENG
SUPERVISORY PATENT EXAM